SEFSC Marine Mammal Health and Stranding Response Program

Program Review

NOAA FISHERIES

PRBD Miami

Aug 27, 2015

Background and History

- Marine Mammal Health and Stranding Response Program (MMHSRP) was created in the 1992 Amendments to the Marine Mammal Protection Act, Title IV
- NOAA's National Marine Fisheries Service (NMFS) was designated as the lead agency to coordinate related activities.

MMPA Title IV: Marine Mammal Health and Stranding Response Program

Purposes of the program:

1. Coordinate effective responses to strandings and unusual mortality events (UMEs)
2. Collect and disseminate health data on wild marine mammal populations
3. Correlate health/trends data with biological, physical, chemical, and environmental parameters

Marine Mammal Stranding Network

Due to logistical constraints (personnel and money), NMFS cannot accomplish these purposes nationwide alone.

Thus, NMFS oversees, coordinates, and authorizes stranding network members.

Stranding network partners authorized through:

- Stranding Agreements issued by the Regional Office (MMPA section 112c)
- MMPA section 109h – federal, state, or local government officials responding during the normal course of their duties

Components of the National Marine Mammal Health and Stranding Response Program (MMHSRP)

Stranding Network

Rehabilitation & Release

Disentanglement Network

Disease/Unusual Mortality Event Investigations

Biomonitoring / Health Assessments

Prescott Grant Program

Tissue Bank/ Quality Assurance

Data Management

Marine Mammal Health and Stranding Response Program

- National/Regional Coordinators
- Standardized protocols
- Data Management (collection, coordination and interpretation)
  - Useful for detection of UME's, trends, population health,
- Increased communication (regional and national meetings, list-serves, newsletters, webinars)

Resulted in:

- Accountability: both to peers (other network members) and to NMFS (authority)
- More consistency overall

Roles:

National MMHSRP (Silver Spring, MD)

- **Guidance, policy, database, oversight, and funding**

Southeast Region

SERO (St. Petersburg)

Regional Administrator
- final decision making authority

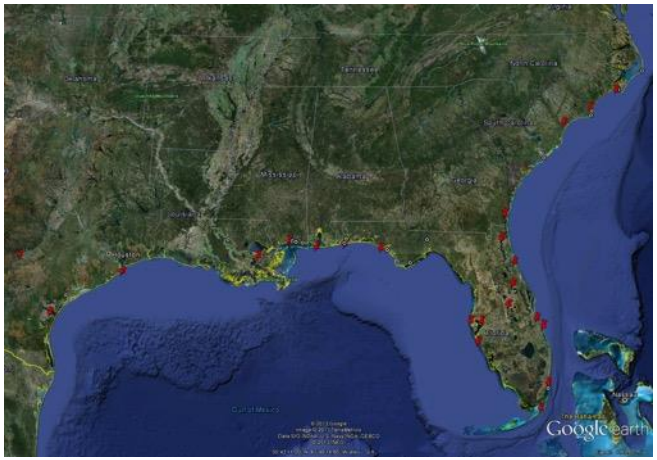
Program Administrator
- Stranding Agreements
- Rehabilitation Dispositions
- Marine Mammal Parts Authorizations (tissue, bones)

SEFSC (Miami)

Regional Stranding Coordinators
- Stranding Response and Coordination
- Science
- Data Management
- Communication

SEUS Stranding Network

Southeast Regional Stranding Network:



- 20 Stranding Agreement Holders
- 6 Designee organizations
- 12 109h organizations
- 11 Rehabilitation facilities (FL-6, MS-1, LA-1, TX-2, PR-1)

Role of the NMFS SEFSC Stranding Coordinator(s):

Stranding Coordinator

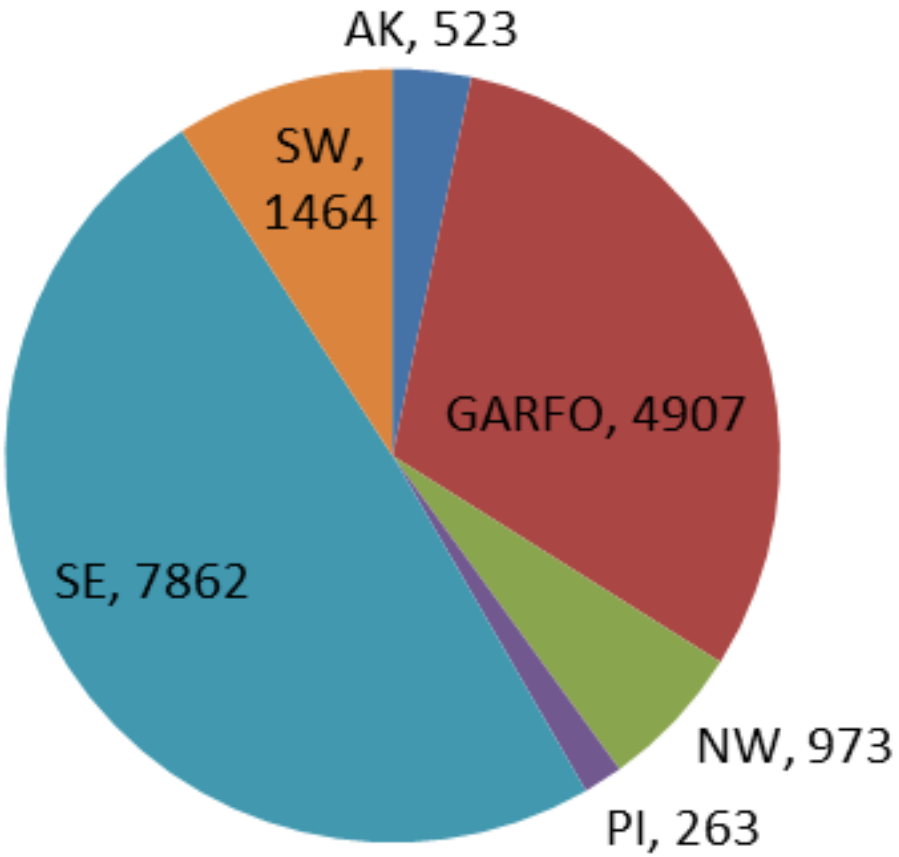
- **Facilitates rapid response** of strandings in SER (24 hour on-call)
- **Enhances network capabilities**, identifies gaps and strengths, provides training
- **Maintains communication** links between all network elements
- **Provides assistance and guidance** to responders on scene
- Makes **disposition decisions** of live animals on beach
- Coordinates **UME investigations**
- Serves as **media** spokesperson

Assistant Coordinator

- **Manages data** reported by the stranding network
  - Ensures timely entry of all records
  - Audits data entered into the national stranding database
  - Develops data entry and validation policies
  - Trains new database users
- **Conducts data analysis** and summaries, provide data reports, and produce publications and presentations and data requests from public.
- **Provides stranding support** to stranding coordinator (24 hour on-call)

U.S. Cetacean Strandings 2005-2014

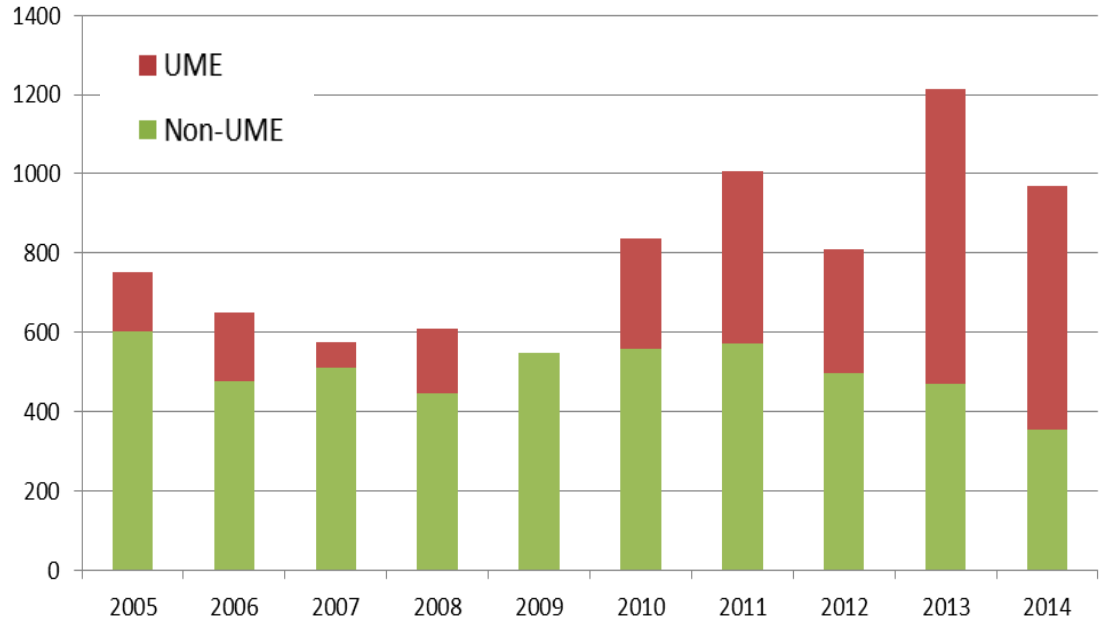
Less than 1% of SER strandings are pinnipeds



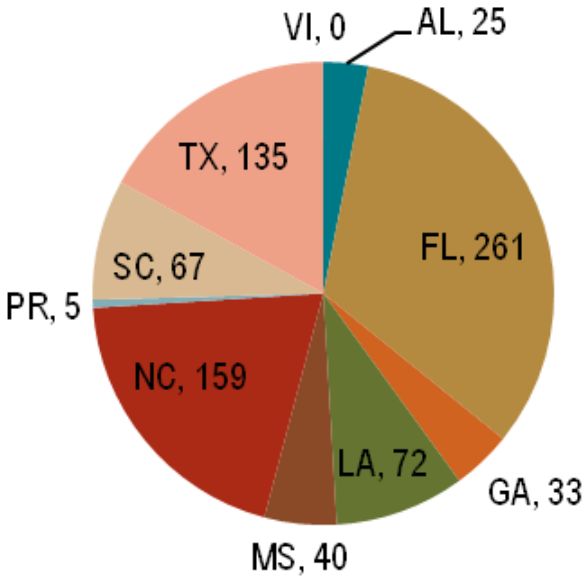
SER Strandings 2005-2014

- Total - 7,965 strandings
- Average 885 strandings/year

Number of Strandings per year

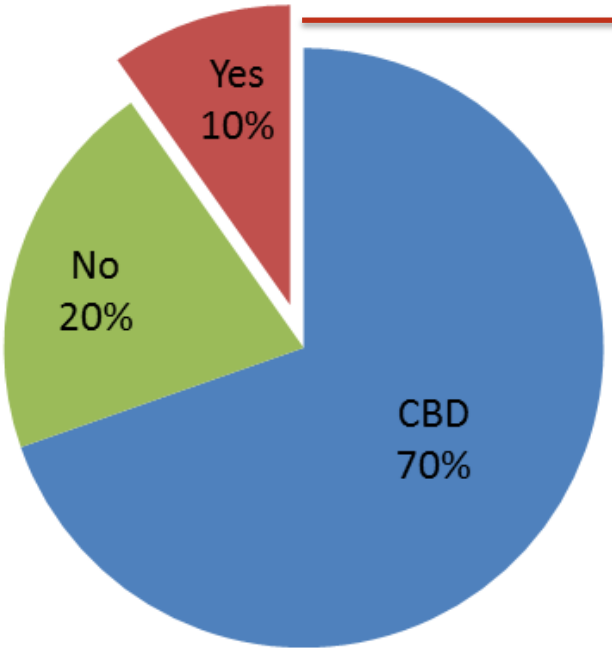


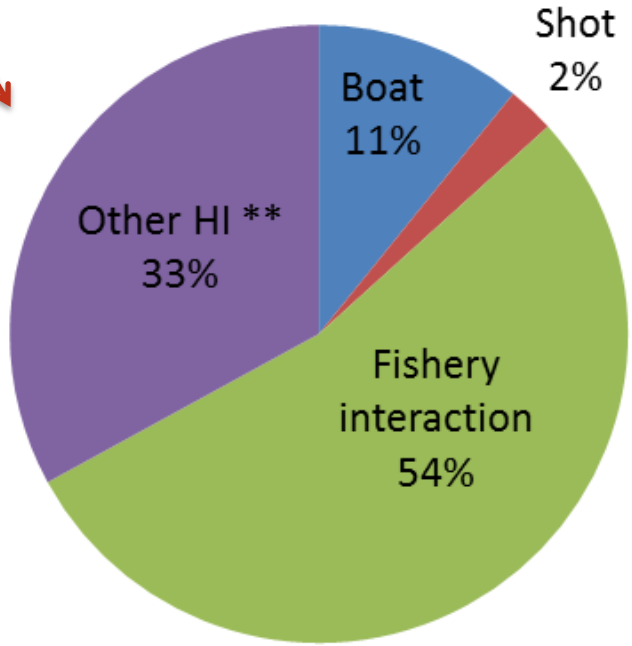
Annual Ave. per State



Human Interactions 2005 - 2014

Of those that are Yes:





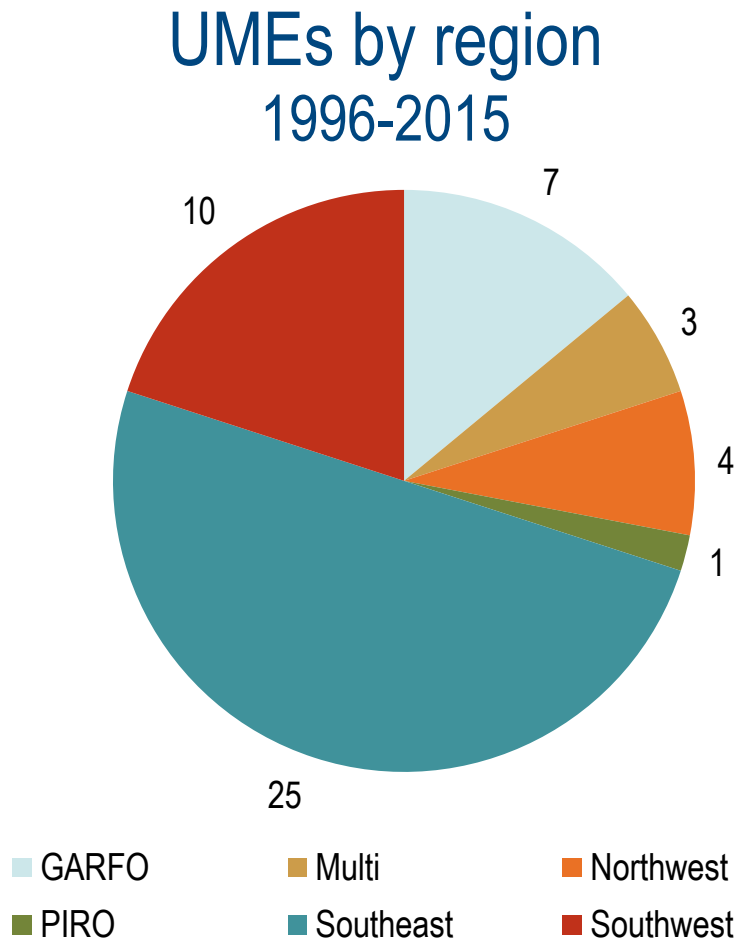
** includes: marine debris, mutilation, rope marks, etc.

Value of Evaluating Strandings for Evidence of Human Interactions

- Provides valuable information for the management purposes and enforcement investigations
- Aids in MMHSRPs mandate to evaluate the causes of morbidity and mortality (serious injury)
- Contributes to Annual Stock Assessment Reports

SER Unusual Mortality Events

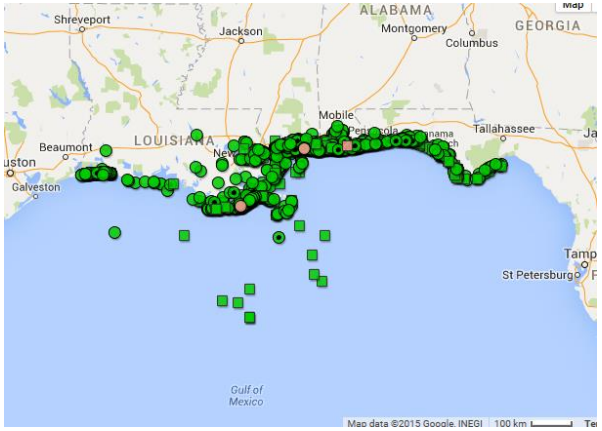
- 28 cetacean UMEs occurred in the SER since1996
- Over 50% of UMEs occur in SER
- 2 active UMEs
  - Northern Gulf 2010-present, ~1400 (investigating DWH oil spill as a contributor)
  - Mid-Atlantic Bottlenose dolphin 2013-present, ~ 1751 (morbillivirus)



Recent Unusual Mortality Events (UME):

Both Northern Gulf UME and Mid-Atlantic UME:

- Are massive in scale
  - ➢ Multi agency/ multi-organizational and cross regional.
  - ➢ Resources diverted to assist (drop and go)
  - ➢ Data management
- Highlighted SEFSC's coordination/collaboration with other organizations and within NMFS
- Provided SEFSC research opportunities (collaborations and publications)
- NGUME contributed to DWH NRDA



Stranding Data Are Incorporated Into Annual Stock Assessment Reports

- Annual summaries for each species of total strandings
- Description of major events such as mass strandings and UMEs
- Minimum counts of serious injury and mortality associated with unobserved fisheries
- Other human caused mortalities such as gunshot wounds, boat strikes, etc.


NOAA


CMA

Stranding Data Contributes to Conservation, Science and Management

- Information on distribution and stock structure
- Life history parameters (age, diet, reproductive biology)
- Identification of causes of morbidity and mortality
- Identification of emerging threats and monitoring changes in health trends
- Support for law enforcement investigations of human interactions and illegal takes

Strengths

- Unique source of data on biology, disease, and threats that improve stock assessments
- SEFSC involvement improves data quality, coordination, and enhances investigations of UMEs and other events
- Strong partnerships with Regional Office, Federal and State agencies, and network members
- Strong communication, public outreach and education role

Challenges

- Limited staff for response and coordination
- Network resources are variable and limited
- Politics of interacting with diverse network members with differing levels of capability
- Crisis management
- Evaluating trends and spatial patterns given variable effort

Photo: Karen Clark

Future Directions

- Improved readiness for oil spill and other emergency response efforts and large scale stranding events
- Improved data collection and evaluation of human interactions
- Sampling for emerging threats (e.g., noise, pollutants, disease, HABs, etc.)
- Standardization of efforts to allow for evaluation of trends
- Improved detection of future events